

ABSTRACT OF THE INVENTION

A system and method for detecting overlay errors, the method includes (i) directing a primary electron beam to interact with an inspected object; whereas the inspected object comprises a first feature formed on a first layer of the inspected object and a second feature formed on a second layer of the object, wherein the second feature is buried under the first layer and wherein the second feature affects a shape of an area of the first layer; (ii) detecting electrons reflected or scattered from the area of the first layer; and (iii) receiving detection signals from at least one detector and determining overlay errors.